# MANUAL ERVICE S

NAD

84

06/1000S

106/1000S PREAMPLIFIER

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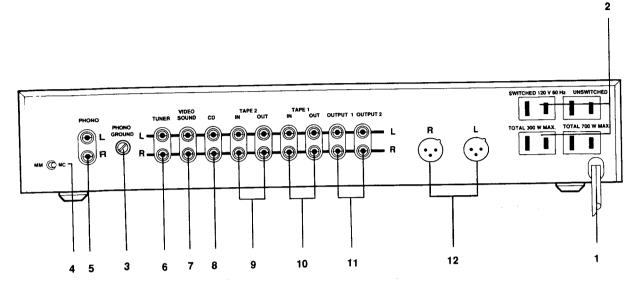
# **SPECIFICATIONS**

Measured in accordance with EIA Standard RS-490 (IHF T-202).

PHONO INPUT	MM and MC:47K ohm + 200pF
Input impedance (R and C) Input sensitivity ref. 0.5V 1KHz	MM:
	MC:
ref. 0.5V,	MM:20mV/200mV/1700mV
Input overload at 20Hz/1KHz/20KHz	MC:1.3mV/13mV/110mV
	MM:76dB ref. 5mV
Signal/Noise ratio (A-weighted with cartridge connected)	
(A-weighted with carriage connected	<0.02%
RIAA accuracy	MM:+/-0.2dB 20Hz-20KHz
HIAA accuracy	MC:+/-0.2dB 50Hz-20KHz
	0.5dB at 20Hz
Input sensitivity ref. 0.5V	ner, Tape1, Tape2)
LINE LEVEL OUTPUTS	Pre-amp220 ohrns
Output impedance	XLR
	Tape Source Z + 2K ohms
	Phones
Maximum output level	Pre-amp>12V
Maximum output level	XLR>12V
	Tape>10V
	Phones>8V into 600 ohrns
	>250mV into 8 ohrns
CONTROLS	
CONTROLS	+/-7dB at 10KHz
Page	+/-10dB at 50Hz
Bass	
PHYSICAL SPECIFICATIONS	
Dimensions (W X D X D)	3.7Kg (8 lb 1 oz.)
Shipping Woight	4.4Kg (9 lb 11 oz.)
Power Consumption	17W at 120, 220, or 240 VAC 50/60Hz
rower Consumption	

# **REAR PANEL /FRONT PANEL VIEW**

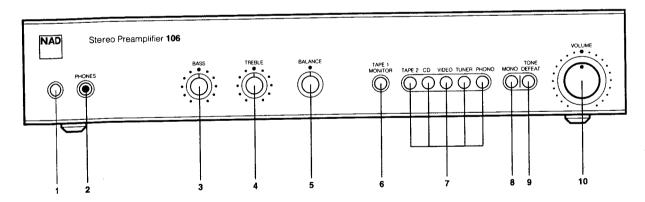
### **REAR PANEL**



- 1. ACLINE CORD
- 2. AC CONVENIENCE OUTLETS (120V model only)
- 3. PHONO GROUND
- 4. MM/MC SELECTOR
- 5. PHONO INPUT
- 6. TUNER INPUT

- 7. VIDEO SOUND INPUT
- 8. CD INPUT
- 9. TAPE 2 INPUT/OUTPUT
- 10. TAPE 1 INPUT/OUTPUT
- 11. PREAMP OUTPUTS
- 12. XLR OUTPUTS

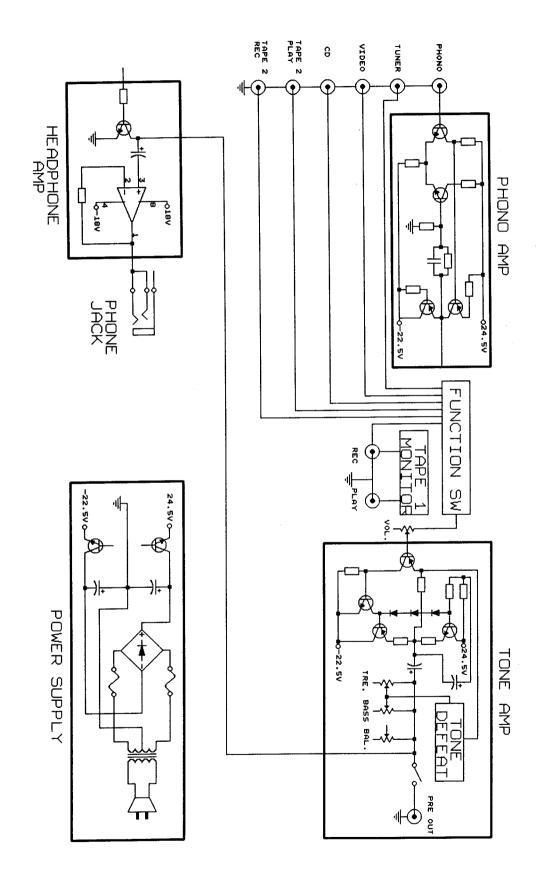
### **FRONT PANEL**

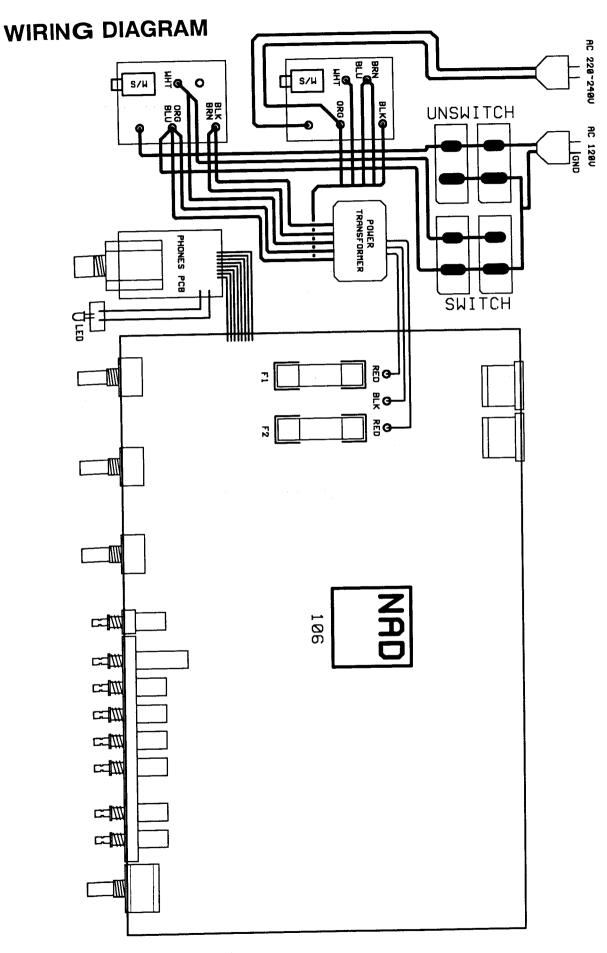


- 1. POWER
- 2. PHONES
- 3. BASS
- 4. TREBLE
- 5. BALANCE
- 6. TAPE 1 MONITOR

- 7. INPUT SELECTOR (TAPE 2, CD, VIDEO SOUND, TUNER, PHONO.)
- 8. MONO
- 9. TONE DEFEAT
- 10. VOLUME

# **BLOCK DIAGRAM**





### **DISASSEMBLY INSTRUCTIONS**

### TOP COVER REMOVAL

Remove parts in order of disassembly as numbered.
 a.① - ④ Machine screws M 4.0x6.0 (See Fig. 1.) from the side panels.

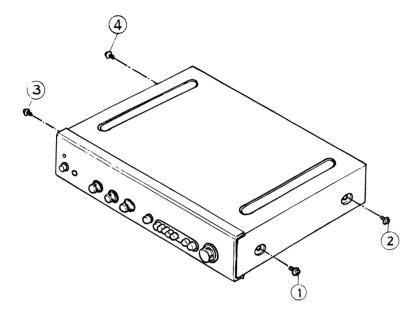


Fig. 1.

2. Pull both sides of TOP COVER outward and then remove in the direction as indicated by pointer (5) (See Fig. 2.)

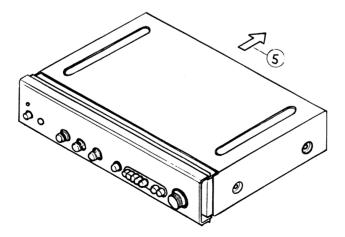
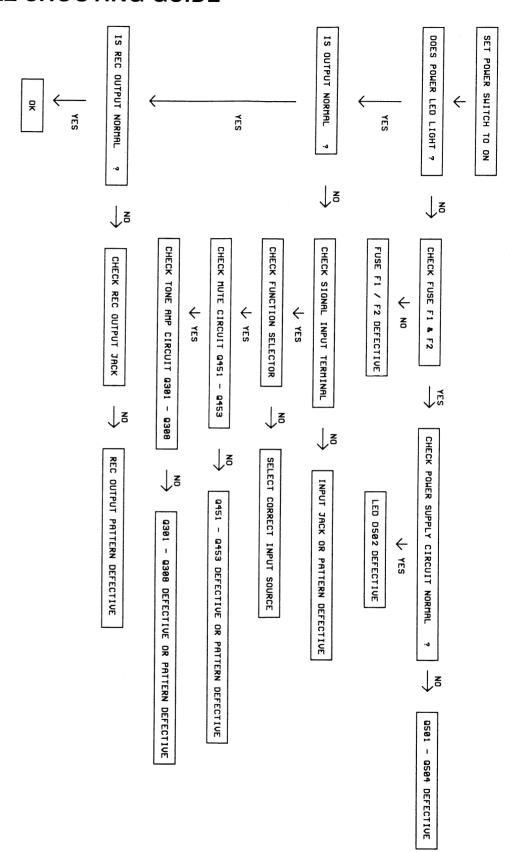
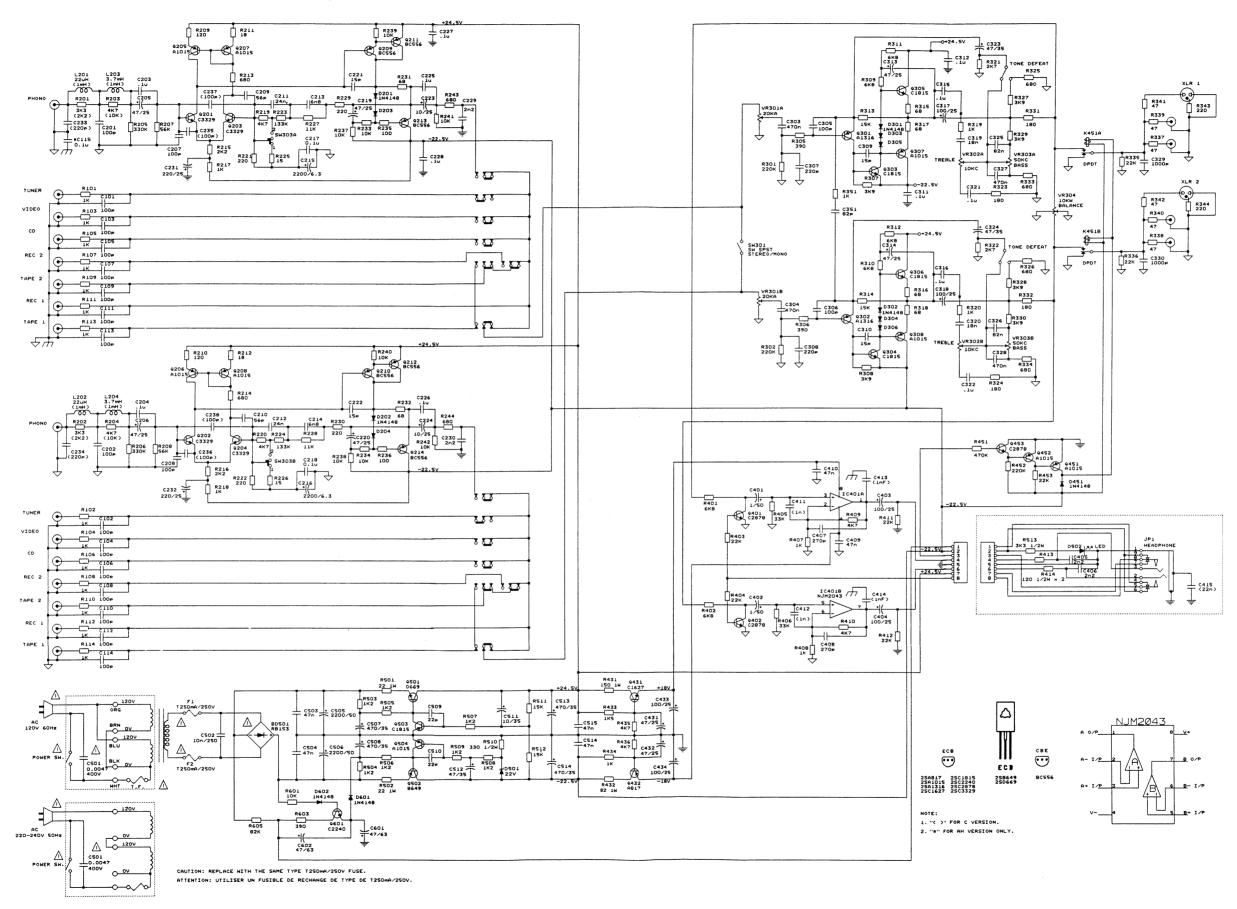


Fig. 2.

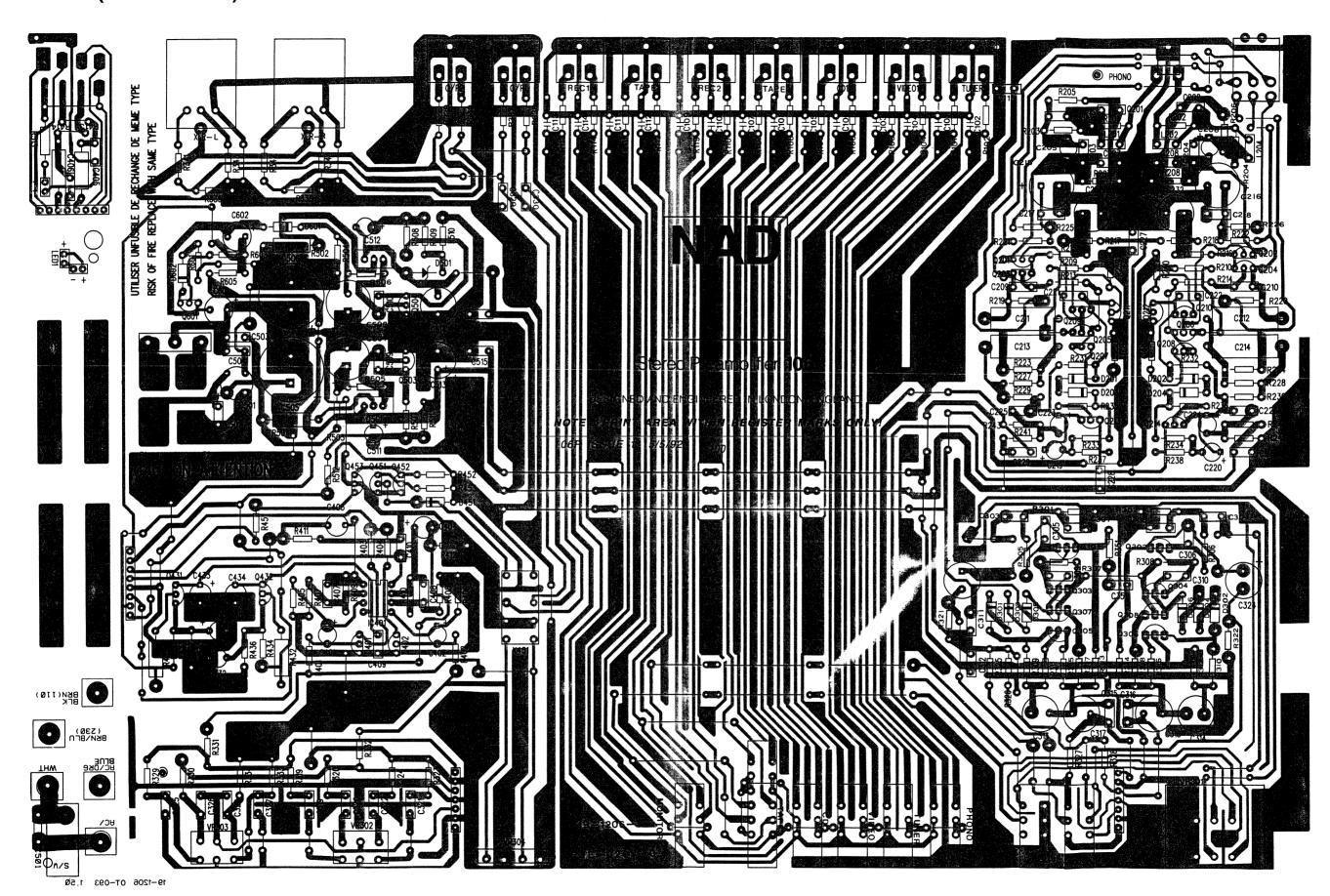
## TROUBLE SHOOTING GUIDE



### **SCHEMATIC DIAGRAM**

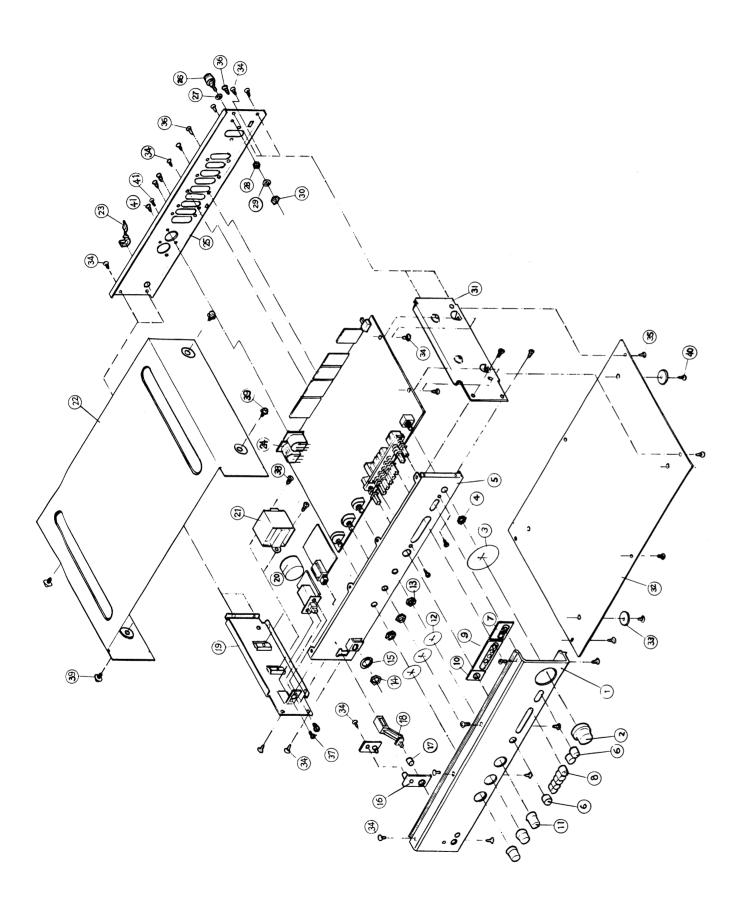


# PCB LAYOUT (PARTS SIDE)



# **EXPLODED VIEW**

# **EXPLODED VIEW PARTS LIST**



ITEM	PART NO.	DESCRIPTION	Q'TY
1-A	11-8377-2	FRONT PANEL NAD-106	1
1-B	11-8377-1	FRONT PANEL NAD-1000S	1
2	12-3113	KNOB VOLUME	1
3	12-9003	FELT RING 50 x 0.5mm	1
4	29-4162-N	NUT, POT	1
5	11-6116	FRONT CHASSIS	1
6	12-3110	BUTTON BLACK MONO, TONE DEF, MONITOR	3
7	13-8221-3	BEZEL 2 HOLE	1
8	12-3110	BUTTON BLACK	5
9	13-8224	BEZEL 5 HOLE	1
10	13-8221-2	BEZEL 1 HOLE	1
11	12-3129	KNOB BASS,TREBLE,BALANCE	3
12	12-9002	FELT RING 30 x 0.5mm	3
13	29-4141-N	NUT, POTS	3
14	12-2128G-1	NUT, PHONES	1
15	12-2128G-2	WASHER, PHONES	1
16	13-8221-1	BEZEL POWER	1
17	12-3148	BUTTON GREEN	1
18	12-1083	POWER LINK	1
19	11-6117	FRAME L	1
20	12-7103	TUBE/SVGS-UL	1
21	29-2132	TRANSFORMER	1
22	50-1034	TOP COVER	1
23	14-5003	BUSHINGS	1
24	12-1000S	XLR MALE CHASSIS	2 1
25-A*US/CN	11-8378-7	REAR PANEL US CN/120V NAD-106	1
25-A*WG/EU/SA	11-8378-8	REAR PANEL WG,EU,SA/220-240V NAD-106	1
25-B*US/CN	11-8378-4	REAR PANEL US CN/120V NAD-1000S	1
25-B*WG/EU/SA	11-8378-5	REAR PANEL WG,EU,SA/220-240V NAD-1000S	1
26-1	15-2037	GND BOLT	1
26-2	15-2037-1	GND NUT	1
27	15-2037-3	STOP WASHER	1
28	15-2037-5	GEAR WASHER	1
29	15-2037-4	CONNECT WASHER	1
30	15-2037-2	BOLT NUT M3.5	1
31	11-6118 11-6119	FRAME R	1
32	28-1044	COVER BOTTOM A562 RUBBER-FOOT	4
33	S2B03+I06SL		21
34	S2B03+106SZ	TAPPING SCREW T3x6 BLK TAPPING SCREW T3x6 COLOR	6
35	S6B03+108SL	TAPPING SCREW 13x8 BLACK	5
36	S1B03+106SL	MACHINE SCREW M3x6 BLK	4
37	S1K04+106SL	TAPPING SCREW T4x6 W/W BLK	2
38 39	\$1K04+106SL \$1K04+106SL	TAPPING SCREW 14x6 W/W BLK TAPPING SCREW T4x6 W/W BLK	4
40	S1B04+108SL	MACHINE SCREW M4x8 BLK	4
41	S1B03+108SL	MACHINE SCREW M3x8 BLK	4

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# **PARTS LIST**

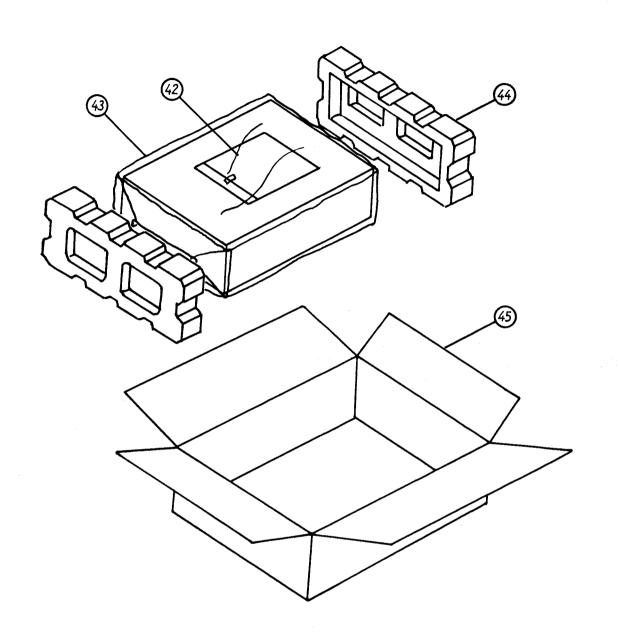
NAD-106 PARTS LIST					0.177
LOCATION	REF. NO.	PARTS NO.	DESCRIPTION		
SELECT-CKT 1000S PCB TU,TV,TA2(0),TA1(I) TA1(0),O/P(1,2)	12-2092G 12-2093G	(19-1206-1) (19-1206) 12-2092G 12-2093G	NAD-106 FR4 RCA JACK, 4P/G RCA JACK, 6P/G	GOLD PLATE GOLD PLATE	1 3 1
RESISTORS R101-R114	16-1/4MA102F	16-1/4MA102F	RES.	M.F.,1K,1/4W,+/-1%	14
CAPACITORS C115 * AH C101-C114	17-5DR104M 17-5SR101J	17-5DR104M 17-5SR101J	CAP.	M.CER.,0.1uF/50V,+/-20% E.PS.,100pF/50V,+/-5%	1 14
SWICTHES TONE DEFEAT & MONO PH/TU/VI/CD/TA2 SW301	31-1209 31-1210 31-1211	31-1209 31-1210 31-1211	SW-SEL SW-SEL SW-PUSH	SPUN21K006-EK SPUN51K004-EK SPUN12K801-EK MONITOR	1 1 1
PHONO CKT		(19-1206-2) 12-2123-1	NAD-106 RCA JACK, 2P/G	GOLD PLATE	1
PHONO  RESISTORS R235, R236 R217, R218 R233, R234, R237-242 R227, R228 R209, R210 R223, R224 R225, R226 R212, R211 R221, R222, R229, R230 R215, R216 R201, R202 * AH R201, R202 * C R205, R206 R203, R204 * C R219, R220 R217, R220 R217, R208 R231, R232 R213, R232 R213, R214, R243, R244	16-1/4MA101F 16-1/4MA102F 16-1/4MA103F 16-1/4MA121F 16-1/4MA150F 16-1/4MA150F 16-1/4MA221F 16-1/4MA222F 16-1/4MA332F 16-1/4MA332F 16-1/4MA334F 16-1/4MA472F 16-1/4MA472F 16-1/4MA472F 16-1/4MA680F 16-1/4MA680F	16-1/4MA101F 16-1/4MA103F 16-1/4MA103F 16-1/4MA121F 16-1/4MA1333F 16-1/4MA150F 16-1/4MA180F 16-1/4MA221F 16-1/4MA222F 16-1/4MA332F 16-1/4MA334F 16-1/4MA472F 16-1/4MA472F 16-1/4MA472F 16-1/4MA472F 16-1/4MA4680F 16-1/4MA680F	RES. RES. RES.	M.F., 100, 1/4W, +/-1% M.F., 1K, 1/4W, +/-1% M.F., 10K, 1/4W, +/-1% M.F., 11K, 1/4W, +/-1% M.F., 120, 1/4W, +/-1% M.F., 133K, 1/4W, +/-1% M.F., 15, 1/4W, +/-1% M.F., 220, 1/4W, +/-1% M.F., 220, 1/4W, +/-1% M.F., 220, 1/4W, +/-1% M.F., 282, 1/4W, +/-1% M.F., 3K3, 1/4W, +/-1% M.F., 3K3, 1/4W, +/-1% M.F., 4K7, 1/4W, +/-1% M.F., 56K, 1/4W, +/-1% M.F., 680, 1/4W, +/-1% M.F., 680, 1/4W, +/-1%	2282222242222222224
C215,C216 C223,C224 C231,C224 C205,C206,C219,C220 C221,C222 C209,C210 C235-C238 * C C233,C234 * C C203,C204,C217,C218,C225-C228 C229,C230 C211,C212 C213,C214 C201,C202,C207,C208	17-0.63ER228M 17-2.5ER106M 17-2.5ER227M 17-2.5ER476M 17-5DR150J 17-5DR101J 17-5DR221J 17-5FR104J 17-5PR222J 17-5PR222J 17-5SR243J 17-5SR682J 17-5SR101J		CAP. CAP. CAP. CAP. CAP. CAP. CAP. CAP.		2224224282224
L201,L202 * AH L203,L204 * AH L201-L204 * C	29-1089 29-1091 29-1109	29-1089 29-1091 29-1109	COIF	Troid coil, 22uH Troid coil, 3.7mH Troid coil, 1mH	2 4
DIODES D201-D204	1N4148	30-1N4148	DIODE	DIODE 1N4148	4
TRANSISTORS Q205-Q208 Q201-Q204 Q209-Q214	2SA1015GR 2SC3329BL BC556	30-2\$A1015 30-2\$C3329 30-BC556	TR. TR. TR.	2SA1015GR, Toshiba 2SC3329BL, Toshiba BC556, Philips	4 4 6
SWITCH SW303	31-1000s	31-1000s	TOGGLE SW	8021 MM/MC	1
PREAMP CKT		(19-1206-3)	NAD-106		1
RESISTORS R319,R320,R351 R313,R314 R323,R324,R331,R332 R343,R344 R301,R302 R321,R322 R305,R306 R307,R308,R327-R330 R315-R318	16-1/4MA102F 16-1/4MA153F 16-1/4MA221F 16-1/4MA221F 16-1/4MA272F 16-1/4MA391F 16-1/4MA392F 16-1/4MA680F	16-1/4MA102F 16-1/4MA153F 16-1/4MA21F 16-1/4MA221F 16-1/4MA224F 16-1/4MA272F 16-1/4MA391F 16-1/4MA392F 16-1/4MA680F	RES. RES. RES. RES. RES. RES. RES. RES.	M.F., 1K, 1/4W, +/-1% M.F., 15K, 1/4W, +/-1% M.F., 180, 1/4W, +/-1% M.F., 220, 1/4W, +/-1% M.F., 220K, 1/4W, +/-1% M.F., 2K7, 1/4W, +/-1% M.F., 390, 1/4W, +/-1% M.F., 369, 1/4W, +/-1% M.F., 68, 1/4W, +/-1%	324222264

NAD-106 PARTS LIST					
LOCATION	REF. NO.	PARTS NO.	DESCRIPTION		Q'TY
R325,R326,R333,R334 R335,R336 R309-R312 R337-R342	16-1/4MA681F 16-1/4MA223F 16-1/4MA682F 16-1/4MA470F	16-1/4MA681F 16-1/4MA223F 16-1/4MA682F 16-1/4MA470F	RES. RES. RES. RES.	M.F.,680,1/4W,+/-1% M.F.,22K,1/4W,+/-1% M.F.,6K8,1/4W,+/-1% M.F.,47,1/4W,+/-1%	4 2 4 6
C311,C312,C315,C316,C321,C322 C319,C320 C303,C304,C327,C328 C325,C326 C329,C330 C305,C306 C307,C308	17-2.5ER107ML 17-2.5ER476ML 17-3.5ER476ML 17-5DR150J 17-5FR104J 17-5FR183J 17-5FR474J 17-5FR823J 17-5SR102J 17-5SR101J 17-5SR221J 17-5SR820J	17-2.5ER107ML 17-2.5ER476ML 17-3.5ER476ML 17-5DR150J 17-5FR104J 17-5FR183J 17-5FR474J 17-5FR623J 17-5SR102J 17-5SR101J 17-5SR221J 17-5SR820J	CAP. CAP. CAP. CAP. CAP. CAP. CAP. CAP.	ELE., 100uF/25V,+/-20%,L.L. ELE., 47uF/25V,+/-20%,L.L. ELE., 47uF/35V,+/-20%,L.L. M.CER., 15pF/50V,+/-5% M.PE., 0.1uF/50V,+/-5% M.PE., 18nF/50V,+/-5% M.PE., 82nF/50V,+/-5% E.PS., 1nF/50V,+/-5% E.PS., 100pF/50V,+/-5% E.PS., 220pF/50V,+/-5% E.PS., 220pF/50V,+/-5% E.PS., 82pF/50V,+/-5%	222262422221
VAR. VR302 VR303 VR304 VR301	29-4136 29-4140 29-4141 29-4162	29-4136 29-4140 29-4141 29-4162	VAR. TREBLE VAR. BASS VAR. BAL VAR. VOL	RK163121A106-10KC*2-EK RK163121A155-50KC*2-EK RK163111E291-10KW-EK RK27112A0-20KAX2	1 1 1
D10DES D301-D306	1N4148	30-1N4148	DIODE	DIODE 1N4148	6
TRANSISTORS Q307,Q308 Q301,Q302 Q303-Q306	2SA1015GR 2SA1316GR 2SC1815GR	30-2SA1015 30-2SA1316 30-2SC1815	TRAN. TRAN. TRAN.	2SA1015GR, Toshiba 2SA1316GR, Toshiba 2SC1815GR, Toshiba	2 2 4
POWER CKT		(19-1206-5)	NAD-106		1
R513 R601 R503-R509 R511, R512	16-1XK220J 16-1/2CA332J 16-1/4MA103F 16-1/4MA122F 16-1/4MA331F 16-1/4MA331F 16-1/4MA331F	16-1XK220J 16-1/2CA332J 16-1/4MA103F 16-1/4MA122F 16-1/4MA153F 16-1/4MA331F 16-1/4MA391F 16-1/4MA823F	RES. RES. RES. RES. RES. RES. RES.	M.X.22,1W,+/-5%,KINK C.F.,3K3,1/2W,+/-5%,TAPE M.F.,10K,1/4W,+/-1% M.F.,1K2,1/4W,+/-1% M.F.,15K,1/4W,+/-1% M.F.,330,1/4W,+/-1% M.F.,330,1/4W,+/-1% M.F.,82K,1/4W,+/-1%	2 1 7 2 1 1
C511 C507, C508, C513, C514 C512 C501 C509, C510 C601, C602 C505, C506	17-25FR103K 17-3.5ER106M 17-3.5ER477M 17-3.5ER476M 17-40CR472M 17-5DR220J 17-5ER476M 17-5ER228M 17-5FR473J	17-25FR103K 17-3.5ER106M 17-3.5ER477M 17-3.5ER476M 17-40CR472M 17-5DR220J 17-5ER476M 17-5ER228M 17-5FR473J	CAP. CAP. CAP. CAP. CAP. CAP. CAP. CAP.	M.PE., 10nF/250V,+/-10% ELE., 10uF/35V,+/-20% ELE., 470uF/35V,+/-20% ELE., 47uF/35V,+/-20% CER., 4n7F/400V,+/-20% M.CER., 22PF/50V,+/-5% ELE., 47uF/63V,+/-20% ELE., 2200uF/50V,+/-5% M.PE., 47nF/50V,+/-5%	1 1 4 1 1 2 2 4
DIODES D501 D601, D602 BD501	30-HZ22-2 1N4148 RB153	30-HZ22-2 30-1N4148 30-RB153	ZENER DIODE DIODE BRIDGE DIODE	ZD 22V,1/2W,+/-5% DIODE 1N4148 RB153	1 2 1
TRANSISTORS Q502 Q501 Q504 Q503 Q601	2SB649A or C 2SD669A or C 2SA1015GR 2SC1815GR 2SC2240GR	30-2SB649A 30-2SD669A 30-2SA1015 30-2SC1815 30-2SC2240	TRAN. TRAN. TRAN. TRAN. TRAN.	2SB649A or C, Hitachi 2SD669A or C, Hitachi 2SA1015GR, Toshiba 2SC1815GR, Toshiba 2SC2240GR, Toshiba	1 1 1 1
FUSES F01,F02 F1,F2 *C F1,F2 *B1 F1,F2 *AH	32\$2014 32\$1250250T\$ 32\$1250250T\$ 32\$1250250TU	32S2014 32S1250250TS 32S1250250TS 32S1250250TU	CLAMPER 218.250 218.250 SGC0.25	FUSE CLAMPER, CPF-011 250ma/250V,5øx20mmT, SEMKO 250ma/250V,5øx20mmT, SEMKO 250ma/250V,5øx20mmT, SGC, UL	4 2 2 2
T501	29-2132	29-2132	TRANSFORMER	Universal/LX-0136	1
\$501	31-1213	31-1213	SW-POWER	SDDLB1007U-EK TV-3	1
FOR LED D502	30-SE2021	(19-1206-6) 30-SE2021	NAD-106 L.E.DIODE	LED/SE2021,GRN	1
HEADPHONE CKT J401	12-2128G	(19-1206-4) 12-2128G	NAD-106 HEADPHONE JACK	CPJ-061-9G with clipper	1

NAD	-104	PARTS	LIST

LOCATION	REF. NO.	PARTS NO.	DESCRIPTION		Q'TY
RESISTORS R431 R432 R413,R414 R407,R408,R434 R433 R403,R404,R411,R412,R453 R452 R405,R406 R409,R410,R435,R436 R451 R401,R402	16-1MK151J 16-1MK820J 16-1/2CA121J 16-1/4MA102F 16-1/4MA252F 16-1/4MA224F 16-1/4MA333F 16-1/4MA472F 16-1/4MA472F 16-1/4MA682F	16-1MK151J 16-1MK820J 16-1/2CA121J 16-1/4MA102F 16-1/4MA23F 16-1/4MA224F 16-1/4MA224F 16-1/4MA472F 16-1/4MA472F 16-1/4MA474F 16-1/4MA682F	RES. RES. RES. RES. RES. RES. RES. RES.	M.F.,150,1W,+/-5%,KINK M.F.,82,1W,+/-5%,KINK C.F.,120,1/2W,+/-5% M.F.,1K,1/4W,+/-1% M.F.,1K5,1/4W,+/-1% M.F.,22K,1/4W,+/-1% M.F.,33K,1/4W,+/-1% M.F.,470K,1/4W,+/-1% M.F.,470K,1/4W,+/-1% M.F.,470K,1/4W,+/-1% M.F.,6K8,1/4W,+/-1%	11231512412
CAPACITORS C403,C404,C433,C434 C431,C432 C407,C408 C401,C402 C405,C406 C409,C410 C411-C414 * C	17-2.5ER107M 17-2.5ER476M 17-5DR271J 17-5ER105M 17-5FR222J 17-5FR473J 17-5FR102J	17-2.5ER107M 17-2.5ER476M 17-5DR271J 17-5ER105M 17-5FR222J 17-5FR473J 17-5FR102J	CAP. CAP. CAP. CAP. CAP. CAP.	ELE.,100uF/25V,+/-20% ELE.,47uF/25V,+/-20% M.CER.,270pF/50V,+/-5% ELE.,1uF/50V,+/-20% M.PE.,2n2F/50V,+/-5% M.PE.,47nF/50V,+/-5% M.PE.,1nF/50V,+/-5%	4222224
RELAY K451	29-1000s	29-1000s	RELAY	DS2Y-S-DC-24V	1
DIODE D451	1N4148	30-1N4148	DIODE	DIODE 1N4148	1
TRANSISTORS Q451,Q452 Q432 Q431 Q401,Q402,Q453	2SA1015GR 2SA817Y 2SC1627Y 2SC2878A	30-2SA1015 30-2SA817 30-2SC1627 30-2SC2878	TRAN. TRAN. TRAN. TRAN.	2SA1015GR, Toshiba 2SA817Y, Toshiba 2SC1627Y, Toshiba 2SC2878A, Toshiba	2 1 1 3
IC. IC401	NJM2043(D)	30-NJM2043	IC.	NJM2043(D), JRC	1

# PACKING DIAGRAM



ITEM	PARTS NO.	DESCRIPTION	Q'TY
42	21-4054	OWNER'S MANUAL	1 1 2 1
43	26-0716	PE - BAG	
44	34-1059	POLYLON	
45	CT-5193-2	GIFT - BOX	